Smenter Search

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01/10/2004

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L7 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:537491 HCAPLUS

DOCUMENT NUMBER: 135:117260

TITLE: Therapeutic use of D-methionine to reduce the toxicity

of ototoxic drugs, noise, and

radiation

INVENTOR(S): Campbell, Kathleen C. M.

PATENT ASSIGNEE(S): Southern Illinois University School of Medicine, USA

SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 6,187,817.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6265386	B1	20010724	US 1998-57065	19980408
US 6187817	B1	20010213	US 1997-942845	19971002
PT 1019036	T	20031128	PT 1998-915362	19980408
ES 2202834	Т3	20040401	ES 1998-915362	19980408
US 2002019443	A1	20020214	US 2001-911195	20010723
US 2004110719	A1	20040610	US 2003-694448	20031027
US 2004127568	A1	20040701	US 2003-694432	20031027
PRIORITY APPLN. INFO.:			US 1997-942845	12 19971002
	•		US 1996-27750P	19961003
			US 1998-57065	12 19980408
			US 2001-911195	1 20010723

AB Methods of preventing or reducing hearing or balance loss, damage to ear cells, weight loss, gastrointestinal toxicity, neurotoxicity, alopecia, and prolonging survival in patients undergoing treatment with therapeutically effective amts. of platinum-containing chemotherapeutic agents such as cisplatin are provided. Methods are also provided for preventing or reducing such symptoms in patients undergoing treatment with loop diuretics, aminoglycoside antibiotics, iron chelating agents, quinine, and quinidine, or those who have been exposed to toxic levels of noise or radiation. These methods comprise administering an effective amount of a methionine protective agent, such as D-methionine, prior to, simultaneously with, or subsequently to administration of the platinum-containing chemotherapeutic agent, loop diuretic agent, etc., or exposure to noise or radiation. Combinations of these time periods can also be employed.

IC ICM A61K031-70

ICS A61K031-195

NCL 514036000

CC 1-12 (Pharmacology)

Section cross-reference(s): 8

ST methionine cytoprotective ototoxicity drug radiation noise

IT Antibiotics

(aminoglycoside; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Diuretics

(loop; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Body weight

Hearing

(loss; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Cytoprotective agents

(neuroprotectants; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Toxicity

(neurotoxicity; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Chelating agents

(pharmaceutical; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Antitumor agents

(platinum-containing; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Acoustic noise

Alopecia

Cytoprotective agents

Ear

Radiation

(therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT Digestive tract

Nerve

(toxicity; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT 7439-89-6, Iron, biological studies

RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chelating agents; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT 56-54-2, Quinidine 57-92-1, Streptomycin, biological

studies 59-01-8, Kanamycin 114-07-8, Erythromycin

130-95-0, Quinine 1403-66-3, Gentamicin

1404-04-2, Neomycin 1404-90-6, Vancomycin

6379-56-2, Hygromycin 7542-37-2, Paromomycin

14096-51-6, Dichloro (ethylenediamine) platinum (II)

14215-58-8, Chloro(diethylenetriamine)platinum(II) chloride

14913-33-8, trans-Diamminedichloroplatinum(II) 15663-27-1

Cisplatin 20115-64-4 32986-56-4, Tobramycin

37517-28-5, Amikacin 41575-93-3 41575-94-4,

Carboplatin 41666-77-7 56391-56-1, Netilmicin

62928-11-4, Iproplatin 64363-09-3 67254-31-3

74790-08-2, Spiroplatin 114579-59-8 141610-50-6

148977-78-0 149055-58-3

RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT 59-51-8, Methionine 63-68-3, L-Methionine, biological studies 348-67-4, D-Methionine 502-83-0, Methioninol

1319-79-5 6094-76-4, Homomethionine 13073-35-3

, Ethionine 29908-03-0, S-Adenosyl-L-methionine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

IT 7439-89-6, Iron, biological studies

RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chelating agents; therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

RN 7439-89-6 HCAPLUS

CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

56-54-2, Quinidine 57-92-1, Streptomycin, biological IT studies 59-01-8, Kanamycin 114-07-8, Erythromycin 130-95-0, Quinine 1403-66-3, Gentamicin 1404-04-2, Neomycin 1404-90-6, Vancomycin 6379-56-2, Hygromycin 7542-37-2, Paromomycin 14096-51-6, Dichloro (ethylenediamine) platinum (II) 14215-58-8, Chloro(diethylenetriamine)platinum(II) chloride 14913-33-8, trans-Diamminedichloroplatinum(II) 15663-27-1 . Cisplatin **20115-64-4 32986-56-4**, Tobramycin 37517-28-5, Amikacin 41575-93-3 41575-94-4, Carboplatin 41666-77-7 56391-56-1, Netilmicin 62928-11-4, Iproplatin 64363-09-3 67254-31-3 74790-08-2, Spiroplatin 114579-59-8 141610-50-6 148977-78-0 149055-58-3 RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

RN 56-54-2 HCAPLUS

CN Cinchonan-9-ol, 6'-methoxy-, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 57-92-1 HCAPLUS

CN D-Streptamine, O-2-deoxy-2-(methylamino)-α-L-glucopyranosyl-

 $(1\rightarrow 2)$ -O-5-deoxy-3-C-formyl- $\alpha$ -L-lyxofuranosyl- $(1\rightarrow 4)$ -N,N'-bis(aminoiminomethyl)- (9CI) (CA INDEX NAME)

## Absolute stereochemistry.

RN 59-01-8 HCAPLUS CN D-Streptamine, O-3-amino-3-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 6)$ -O-[6-amino-6-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 4)$ ]-2-deoxy- (9CI) (CA INDEX NAME)

## Absolute stereochemistry.

RN 114-07-8 HCAPLUS CN Erythromycin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 130-95-0 HCAPLUS CN Cinchonan-9-ol, 6'-methoxy-, (8α,9R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 1403-66-3 HCAPLUS

CN Gentamicin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 1404-04-2 HCAPLUS

CN Neomycin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 1404-90-6 HCAPLUS

CN Vancomycin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

## PAGE 1-A

PAGE 1-B

Bu-i

PAGE 2-A

RN 6379-56-2 HCAPLUS

CN D-neo-Inositol, 5-deoxy-5-[[(2E)-3-[4-[(6-deoxy-β-D-arabino-hexofuranos-5-ulos-1-yl)oxy]-3-hydroxyphenyl]-2-methyl-1-oxo-2-propenyl]amino]-1,2-0-methylene- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 7542-37-2 HCAPLUS

CN D-Streptamine, O-2-amino-2-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 4)$ -O-[O-2,6-diamino-2,6-dideoxy- $\beta$ -L-idopyranosyl- $(1\rightarrow 3)$ - $\beta$ -D-ribofuranosyl- $(1\rightarrow 5)$ ]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 14096-51-6 HCAPLUS
CN Platinum, dichloro(1,2-ethanediamine-κN,κN')-, (SP-4-2)- (9CI)
(CA INDEX NAME)

RN 14215-58-8 HCAPLUS
CN Platinum(1+), [N-[2-(amino-κN)ethyl]-1,2-ethanediamineκN,κN']chloro-, chloride, (SP-4-2)- (9CI) (CA INDEX NAME)

• c1-

RN 14913-33-8 HCAPLUS CN Platinum, diamminedichloro-, (SP-4-1)- (9CI) (CA INDEX NAME)

RN 15663-27-1 HCAPLUS

CN Platinum, diamminedichloro-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 20115-64-4 HCAPLUS

CN Platinum(2+), diamminediaqua-, (SP-4-2)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OH}_2 \\ | & 2+ \\ \text{H}_3\text{N}-\text{Pt} & \text{NH}_3 \\ | & \\ \text{OH}_2 \end{array}$$

RN 32986-56-4 HCAPLUS

CN D-Streptamine, O-3-amino-3-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 6)$ -O-[2,6-diamino-2,3,6-trideoxy- $\alpha$ -D-ribo-hexopyranosyl- $(1\rightarrow 4)$ ]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 37517-28-5 HCAPLUS

CN D-Streptamine, O-3-amino-3-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 6)$ -O- [6-amino-6-deoxy- $\alpha$ -D-glucopyranosyl- $(1\rightarrow 4)$ ]-N1-[(2S)-4-amino-2-hydroxy-1-oxobutyl]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 41575-93-3 HCAPLUS
CN Platinum, diammine[ethylpropanedioato(2-)-κO1,κO3]-, (SP-4-2)(9CI) (CA INDEX NAME)

RN 41575-94-4 HCAPLUS
CN Platinum, diammine[1,1-cyclobutanedi(carboxylato-κΟ)(2-)]-,
(SP-4-2)- (9CI) (CA INDEX NAME)

RN 41666-77-7 HCAPLUS
CN Platinum, (1,2-ethanediamine-κN,κN') [propanedioato(2-)-κ01,κ03]-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 56391-56-1 HCAPLUS

CN D-Streptamine, O-3-deoxy-4-C-methyl-3-(methylamino)- $\beta$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)-O-[2,6-diamino-2,3,4,6-tetradeoxy- $\alpha$ -D-glycero-hex-4-enopyranosyl-(1 $\rightarrow$ 4)]-2-deoxy-N1-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 62928-11-4 HCAPLUS

CN Platinum, dichlorodihydroxybis(2-propanamine)-, (OC-6-33)- (9CI) (CA INDEX NAME)

RN 64363-09-3 HCAPLUS

CN Platinum, aqua(1,2-cyclohexanediamine-κN,κN')[sulfato(2-)-κ0]-, (SP-4-3)- (9CI) (CA INDEX NAME)

RN 67254-31-3 HCAPLUS

CN Platinum, (1,2-cyclohexanediamine-κN,κN')bis(2-oxopropanoato-κO)-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 74790-08-2 HCAPLUS

CN Platinum, (1,1-cyclohexanedimethanamine-κN,κN') [sulfato(2-)-κ0,κ0']-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 114579-59-8 HCAPLUS

CN Platinum, (1,2-cyclohexanediamine-κN,κN') [propanedioato(2-)-κO1,κO3]-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 141610-50-6 HCAPLUS

CN Platinum, (1,2-cyclohexanediamine-κN,κN') [ethanedioato(2-)- κΟ1,κΟ2]-, (SP-4-2)- (9CI) (CA INDEX NAME)

RN 148977-78-0 HCAPLUS

CN Platinate(1-), (1,2-cyclohexanediamine-κN,κN')[1-hydroxy-1,2,3-propanetricarboxylato(3-)-κO1,κO2]-, hydrogen, (SP-4-3)- (9CI) (CA INDEX NAME)

● H+

RN · 149055-58-3 HCAPLUS

CN Platinate(1-), [1,2,4-benzenetricarboxylato(3-)- $\kappa$ O1, $\kappa$ O2](1,2-cyclohexanediamine- $\kappa$ N, $\kappa$ N')-, hydrogen, (SP-4-3)- (9CI) (CA INDEX NAME)

● H<sup>+</sup>

IT 59-51-8, Methionine 63-68-3, L-Methionine, biological studies 348-67-4, D-Methionine 502-83-0, Methioninol

1319-79-5 6094-76-4, Homomethionine 13073-35-3

, Ethionine 29908-03-0, S-Adenosyl-L-methionine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic use of D-methionine and related compds. to reduce toxicity of ototoxic drugs, noise, platinum-containing antitumor drugs, and radiation)

RN 59-51-8 HCAPLUS

CN (Methionine (9CI) (CA INDEX NAME)

RN 63-68-3 HCAPLUS

CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 348-67-4 HCAPLUS

CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 502-83-0 HCAPLUS

CN 1-Butanol, 2-amino-4-(methylthio)- (7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ | \\ \text{HO-CH}_2\text{--CH-CH}_2\text{--CH}_2\text{--SMe} \end{array}$$

RN 1319-79-5 HCAPLUS

CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ | \\ \text{MeS}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CO}_2\text{H} \end{array}$$

D1-OH

RN 6094-76-4 HCAPLUS

CN Norvaline, 5-(methylthio)- (9CI) (CA INDEX NAME)

RN 13073-35-3 HCAPLUS

CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-,
inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

72

ACCESSION NUMBER:

1999:249071 HCAPLUS

DOCUMENT NUMBER:

130:262147

TITLE:

Use of D-methionine or other methionine compound to

reduce the toxicity of ototoxic drugs,

noise, and radiation

INVENTOR(S):

Campbell, Kathleen C. M.

PATENT ASSIGNEE(S):

Southern Illinois University, USA

SOURCE:

PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE ·

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19990415
                                             WO 1998-US6960
                           A1
                                                                      19980408
     WO 9917765
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             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
              CM, GA, GN, ML, MR, NE, SN, TD, TG
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                                  19990427
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     AU 753039 ·
                           B2
                                 20021003
                                 20000719
                                              EP 1998-915362
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                           A1
     EP 1019036
                           В1
                                  20030625
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                                                                      19980408
     PT 1019036
                                 20031128
     ES 2202834
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                                  20040401
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                                                                      19980408
                                                                   A 19971002
PRIORITY APPLN. INFO.:
                                              US 1997-942845
                                                                   P 19961003
                                              US 1996-27750P
                                                                   W 19980408
                                              WO 1998-US6960
                          MARPAT 130:262147
OTHER SOURCE(S):
     Methods of preventing or reducing hearing or balance loss, damage to ear
     cells, weight loss, gastrointestinal toxicity, neurotoxicity, alopecia, and
     prolonging survival in patients undergoing treatment with therapeutically
     effective amts. of platinum-containing chemotherapeutic agents, e.g.
     cisplatin, are provided. Methods are also provided for preventing or
     reducing such symptoms in patients undergoing treatment with loop
     diuretics, aminoglycoside antibiotics, iron chelating agents, quinine, and
     quinidine, or those who have been exposed to toxic levels of noise or
     radiation. These methods comprise administering an effective amount of a
     methionine protective agent, e.g. D-methionine, prior to, simultaneously
     with, or subsequently to administration of the platinum-containing
     chemotherapeutic agent, loop diuretic agent, etc., or exposure to noise or
     radiation. Combinations of these time periods can also be employed.
TC
     ICM A61K031-195
     ICS A61K031-10
     1-12 (Pharmacology)
CC
     Section cross-reference(s): 63
     methionine protection ototoxic drug noise radiation
ST
IT
     Antibiotics
        (aminoglycoside; methionine compds. to reduce toxicity of
        ototoxic drugs, noise, and radiation)
IT
     Digestive tract
        (disease; methionine compds. to reduce toxicity of ototoxic
        drugs, noise, and radiation)
IT
     Toxicity
        (drug; methionine compds. to reduce toxicity of ototoxic
        drugs, noise, and radiation)
IT
        (gastrointestinal; methionine compds. to reduce toxicity of
        ototoxic drugs, noise, and radiation)
IT
     Chelating agents
        (iron; methionine compds. to reduce toxicity of ototoxic
```

drugs, noise, and radiation)

IT

Diuretics

```
(loop; methionine compds. to reduce toxicity of ototoxic
        drugs, noise, and radiation)
IT
     Alopecia
     Drug delivery systems
     Ear
     Noise
     Radiation
     Radioprotectants
        (methionine compds. to reduce toxicity of ototoxic drugs,
        noise, and radiation)
IT
        (neurotoxicity; methionine compds. to reduce toxicity of
        ototoxic drugs, noise, and radiation)
IT
        (toxicity; methionine compds. to reduce toxicity of ototoxic
        drugs, noise, and radiation)
     7439-89-6, Iron, biological studies
TΤ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (chelating agents; methionine compds. to reduce toxicity of
        ototoxic drugs, noise, and radiation)
     56-54-2, Quinidine 130-95-0, Quinine 15663-27-1
IT
      Cisplatin
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (methionine compds. to reduce toxicity of ototoxic drugs,
        noise, and radiation)
     59-51-8, Methionine 59-51-8D, Methionine, compds.
TT
     59-51-8D, Methionine, derivs. 63-68-3, L-Methionine,
     biological studies 63-68-3D, L-Methionine, derivs., biological
     studies 348-67-4, D-Methionine 348-67-4D,
     D-Methionine, derivs. 502-83-0, Methioninol 1319-79-5
     13073-35-3, Ethionine 29908-03-0, S-Adenosyl-L-
     methionine
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (methionine compds. to reduce toxicity of ototoxic drugs,
        noise, and radiation)
     7439-89-6, Iron, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (chelating agents; methionine compds. to reduce toxicity of
        ototoxic drugs, noise, and radiation)
RN
     7439-89-6 HCAPLUS
CN
     Iron (7CI, 8CI, 9CI) (CA INDEX NAME)
Fe
IT
     56-54-2, Quinidine 130-95-0, Quinine 15663-27-1
     , Cisplatin
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (methionine compds. to reduce toxicity of ototoxic drugs,
        noise, and radiation)
     56-54-2 HCAPLUS
RN
CN
     Cinchonan-9-ol, 6'-methoxy-, (9S)- (9CI) (CA INDEX NAME)
Absolute stereochemistry. Rotation (+).
```

RN 130-95-0 HCAPLUS

CN Cinchonan-9-ol, 6'-methoxy-, (8\alpha, 9R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 15663-27-1 HCAPLUS

CN Platinum, diamminedichloro-, (SP-4-2)- (9CI) (CA INDEX NAME)

IT 59-51-8, Methionine 59-51-8D, Methionine, compds.

63-68-3, L-Methionine, biological studies 63-68-3D,

L-Methionine, derivs., biological studies 348-67-4, D-Methionine

348-67-4D, D-Methionine, derivs. 502-83-0, Methioninol

1319-79-5 13073-35-3, Ethionine 29908-03-0,

S-Adenosyl-L-methionine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methionine compds. to reduce toxicity of **ototoxic** drugs, noise, and **radiation**)

RN 59-51-8 HCAPLUS

CN Methionine (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ | \\ \text{Mes-CH}_2\text{--CH}_2\text{--CH-CO}_2\text{H} \end{array}$$

RN 59-51-8 HCAPLUS CN Methionine (9CI) (CA INDEX NAME)

RN 63-68-3 HCAPLUS CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 63-68-3 HCAPLUS CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 348-67-4 HCAPLUS

CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 348-67-4 HCAPLUS

CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 502-83-0 HCAPLUS

CN 1-Butanol, 2-amino-4-(methylthio)- (7CI, 8CI, 9CI) (CA INDEX NAME)

$$^{
m NH_2}_{
m HO-CH_2-CH-CH_2-CH_2-SMe}$$

RN 1319-79-5 HCAPLUS

CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \mathrm{NH_2} \\ | \\ \mathrm{Mes-CH_2-CH_2-CH-CO_2H} \end{array}$$

D1-OH

RN - 13073-35-3 HCAPLUS

CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 29908-03-0 HCAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-,
inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> log hold

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 14.86 41.89

FULL ESTIMATED COST

## Cook 10/694,432

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL SESSION

CA SUBSCRIBER PRICE

ENTRY

-3.50

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:17:31 ON 01 OCT 2004